

1 (C) AMENDMENTS TO THE CLAIMS

2 1. (PREVIOUSLY SUBMITTED) An electronic book device comprising:
3 a rewritable viewing screen; and
4 an electrical printhead for writing picture elements of said viewing screen, wherein said
5 viewing screen has a rewritable molecular colorant for printing document content therewith.

6 2. (ORIGINAL) The device as set forth in claim 1, said colorant comprising:
7 bistable, bi-modal molecular colorant susceptible to electrical fields from said printhead
8 for forming said picture elements.

9 3. (ORIGINAL) The device as set forth in claim 1 further comprising:
10 electronics for downloading, storing, sequencing, and erasably printing on the screen.

11 4. (ORIGINAL) The device as set forth in claim 1 further comprising:
12 a housing, and
13 said screen is biasingly extendable and retractable with respect to the housing such that
14 said screen passes across said printhead wherein one pass writes an entire screen page.

15 5. (ORIGINAL) The device as set forth in claim 4 further comprising:
16 said printhead includes a plurality of addressable electrodes such that screen pixel
17 resolution is determined by electrode packing density.

18 6. (ORIGINAL) The device as set forth in claim 1 further comprising:
19 said device is portable, having a self-contained power supply, memory, and electronic
20 controls interconnected for processing data representative of alphanumeric characters and
21 graphics for printing said data on said screen.

22 7. (ORIGINAL) The device as set forth in claim 4 further comprising:
23 a biased roller, wherein said screen is a flexible sheet having one extremity affixed to a
24 roller and an opposing extremity for selectively extending from and retracting into said housing.

1 8. (ORIGINAL) The device as set forth in claim 7 comprising:
2 said housing has physical dimensions to accommodate said biased roller with said sheet
3 wrapped thereabout and said printhead such that portability is maximized.

4 9. (ORIGINAL) The device as set forth in claim 1 comprising:
5 a control pad providing interactive function controls for processing data displayed on
6 said screen.

7 10. (ORIGINAL) The device as set forth in claim 1 further comprising:
8 a wired or wireless input port for receiving at least one readable document electronically.

9 11. (ORIGINAL) The device as set forth in claim 1 further comprising:
10 said viewing screen and printhead are operationally associated for printing a full page
11 document content in a single pass of said screen across said printhead.

12 12. (ORIGINAL) The device as set forth in claim 1 wherein document content resolution of a
13 page printed on said screen is at least equal to commercial hard copy print resolution.

14 13. (ORIGINAL) The device as set forth in claim 2, said colorant further comprising:
15 molecules that exhibit an electric field induced band gap change.

16 14. (ORIGINAL) The device as set forth in claim 13 comprising:
17 said electric field induced band gap change occurs via a mechanism selected from a
18 group including (1) molecular conformation change or an isomerization, (2) change of extended
19 conjugation via chemical bonding change to change the band gap, and (3) molecular folding or
20 stretching.

21 15. (ORIGINAL) The device as set forth in claim 13 comprising:
22 said molecules have more than two said states, switchable such that optical properties
23 can be tuned either continuously by application of a decreasing or increasing electric field to

1 form a volatile switch or color of selected composition regions is changed abruptly by
2 application of voltage pulses to switch with at least one molecular activation barrier.

3 16. (CURRENTLY AMENDED) A rewritable digital book device comprising:
4 a housing means for housing components of said device;
5 means for downloading, storing, sequencing, and erasably printing document content;
6 and
7 viewing means, including a molecular colorant, for ~~[[sequentially,]]~~ erasably writing said
8 content.

9 18. (PREVIOUSLY SUBMITTED) The device as set forth in claim 16 comprising:
10 said colorant including a bistable, bi-modal molecular colorant system susceptible to
11 electrical fields from said printhead for forming picture elements of said viewing means.

12 19. (ORIGINAL) The device as set forth in claim 16 comprising:
13 said viewing means is extractable from said housing means such that said content is
14 erased and written simultaneously in full page content via extraction and retraction.

15 20. (ORIGINAL) The device as set forth in claim 16 comprising:
16 said means for downloading, storing, sequencing, and erasably printing document
17 content including means for internet data and controls processing.

18 21. (ORIGINAL) The device as set forth in claim 16 comprising:
19 said means for downloading, storing, sequencing, and erasably printing document
20 content including wireless communication means for retrieving said content.

21 22. (ORIGINAL) The device as set forth in claim 16 incorporated into a personal digital
22 assistant apparatus.

23 23. (ORIGINAL) The device as set forth in claim 22 comprising:
24 said viewing means is detachable from said device.

- 1 24. (ORIGINAL) The device as set forth in claim 16 comprising:
2 said means for downloading, storing, sequencing, and erasably printing document
3 content including an addressable molecular wire mechanism.
- 4 25. (ORIGINAL) The device as set forth in claim 16 further comprising:
5 a screen having displayed thereon controls for manipulating said downloading, storing,
6 sequencing, and erasably printing document content.
- 7 26. (ORIGINAL) The device as set forth in claim 16 comprising:
8 said housing means is in a geometric form and size associated with hard copy
9 newsprint.
- 10 27. (ORIGINAL) The device as set forth in claim 16 comprising:
11 said housing means is in a geometric form and size of associated with pocket-sized
12 commercial products.
- 13 28. (ORIGINAL) The device as set forth in claim 16 further comprising:
14 associated with said means for downloading, storing, sequencing, and erasably printing
15 document content, means for viewing means position sensing.
- 16 29. (ORIGINAL) The device as set forth in claim 16 further comprising:
17 associated with said means for downloading, storing, sequencing, and erasably printing
18 document content and said viewing means, means for controlling content printing on said
19 viewing means.
- 20 30. (PREVIOUSLY SUBMITTED) A method of providing readable pages, the method
21 comprising:
22 downloading data representative of each of said readable pages into a memory;
23 providing a viewing screen having an electric field addressable rewritable molecular
24 colorant thereon; and

1 writing each of said pages sequentially to the viewing screen by passing the screen
2 adjacently across a printhead having electrical fields associated with pixels of the screen such
3 that said data is transferred from said memory to said screen.

4 31. (ORIGINAL) The method as set forth in claim 30, further comprising:
5 providing a communications interface capability for obtaining an electronic copy of a
6 written document anytime and anyplace and in any known manner where a communications link
7 can be established.

8 32. (ORIGINAL) The method as set forth in claim 30 comprising:
9 using a bi-modal, bistable, molecular system for creating alphanumeric characters and
10 graphic images on said screen.

11 33. (ORIGINAL) The method as set forth in claim 32 wherein said system has molecules
12 that exhibit an electric field induced band gap change.

13 34. (ORIGINAL) The method as set forth in claim 33 wherein said electric field induced
14 band gap change occurs via a mechanism selected from a group including (1) molecular
15 conformation change or an isomerization, (2) change of extended conjugation via chemical
16 bonding change to change the band gap, and (3) molecular folding or stretching.

17 35. (PREVIOUSLY SUBMITTED) A method of doing business of distribution of a document,
18 the method comprising:
19 transmitting electronic data representative of said document; and
20 providing a customer with mechanisms associated with said transmitting for said
21 customer to receive said data on a portable reading device having a single display screen
22 including an electric field addressable rewritable molecular colorant.

1 36. (ORIGINAL) The method as set forth in claim 35, further comprising:
2 using commercially-available communications interfacing for said transmitting such that
3 an electronic copy of a written document anytime and anyplace and in any known manner
4 where a communications link can be established.

5 37. (ORIGINAL) The method as set forth in claim 35 comprising:
6 using a bi-modal, bistable, molecular system for creating alphanumeric characters and
7 graphic images on said screen.

8 38. (ORIGINAL) The method as set forth in claim 37 wherein said system has molecules
9 that exhibit an electric field induced band gap change.

10 39. (ORIGINAL) The method as set forth in claim 38 wherein said electric field induced
11 band gap change occurs via a mechanism selected from a group including (1) molecular
12 conformation change or an isomerization, (2) change of extended conjugation via chemical
13 bonding change to change the band gap, and (3) molecular folding or stretching.

14 40. (ORIGINAL) The method as set forth in claim 35 comprising:
15 providing said document in real-time on a page-by-page paid basis.

16 41. (ORIGINAL) The method as set forth in claim 35 comprising:
17 providing said document in real-time on a document-by-document paid basis.

18 42. (ORIGINAL) The method as set forth in claim 35 said mechanisms further comprising:
19 providing controls associated with ordering documents from an index of available
20 documents.

21 43. (ORIGINAL) The method as set forth in claim 35 said mechanisms further comprising:
22 providing security controls associated with purchase of said document.

1 44. (PREVIOUSLY SUBMITTED) A method of manufacture of an electronic book
2 apparatus, the method comprising:
3 assembling a portable housing with subsystems for receiving data and generating
4 readable images of said data; and
5 combining said subsystems with a display for said readable images wherein said display
6 includes an electric field addressable rewritable molecular colorant.

7 45. (PREVIOUSLY SUBMITTED) The method as set forth in claim 44 comprising:
8 fabricating said display including a view screen surface using a bi-modal, bistable,
9 molecular system for creating alphanumeric characters and graphic images on said surface.

10 46. (PREVIOUSLY SUBMITTED) The method as set forth in claim 45 wherein said
11 molecules exhibit an electric field induced band gap change.

12 47. (PREVIOUSLY SUBMITTED) The method as set forth in claim 46 wherein said electric
13 field induced band gap change occurs via a mechanism selected from a group including (1)
14 molecular conformation change or an isomerization, (2) change of extended conjugation via
15 chemical bonding change to change the band gap, and (3) molecular folding or stretching.

16 48. (PREVIOUSLY SUBMITTED) The device as set forth in claim 18 wherein said viewing
17 means comprises:
18 a plurality of viewing screens wherein each screen has said system for displaying
19 successive pages of said document content.

20 49. (PREVIOUSLY SUBMITTED) The device as set forth in claim 18 wherein said viewing
21 means comprises:
22 a single viewing screen having said system such that one or more successive pages of
23 said document is displayed thereon.